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Technical assistance is available to implement trauma-informed care, but tailoring to midwifery and obstetric practice may be an important first step.

Abstract

Adverse childhood experiences have a strong negative impact on health and are a significant public health concern. Adverse childhood experiences, including various forms of child maltreatment, together with their mental health sequelae (e.g., posttraumatic stress disorder, depression, dissociation) also contribute to adverse pregnancy outcomes (e.g., preterm birth, low birth weight), poor postpartum mental health, and impaired or delayed bonding. Intergenerational patterns of maltreatment and mental health disorders have been reported that could be addressed in the childbearing year. Trauma-informed care is increasingly used in health care organizations and has potential to assist in improving maternal and infant health. This article presents an overview of traumatic stress sequelae of childhood maltreatment and adversity, the impact of traumatic stress on childbearing, and technical assistance that is available from the National Center for Trauma-Informed Care (NCTIC) before articulating some steps to conceptualizing and implementing trauma-informed care into midwifery and obstetric practices.

Keywords: trauma-informed care, maternity care, midwifery, obstetrics, maltreatment, adverse childhood experiences, posttraumatic stress

Quick Points

- Translating trauma-informed care for midwifery care can help address the impact of maltreatment, other adverse childhood experiences and traumatic stress sequelae on childbearing outcomes.
- In midwifery practice trauma-informed care could involve relationship-based themes that have been broadly applied to maternal and child health (e.g., *attachment*, *dyadic regulation*, *holding environment*)
- Trauma-informed care can be tailored to address labor-related needs using six themes distilled from a qualitative meta-synthesis: need for *control*, difficulties with *disclosure*, struggling with *dissociation*, hoping for *healing*, coping with *remembering*, and the discomfort that comes with *vulnerability*.
- Interprofessional approaches to trauma-informed care from mental health and other health care settings could also be successful in maternity care and capitalize on the perinatal team.
- Very few trauma-informed models of midwifery and trauma-specific interventions have been developed and tested for pregnant and postpartum women; collaborations to build an evidence-base is needed.

INTRODUCTION

One in five women worldwide has a history of childhood maltreatment.[1] Forms of maltreatment include physical, sexual, and emotional abuse, and physical and emotional neglect. Childhood maltreatment constitutes a subset of a broader category of what the Centers for Disease Control and Prevention (CDC) call Adverse Childhood Experiences (ACEs). They have defined ACEs as the five forms of maltreatment and also five other potentially traumatic circumstances: parental mental illness, substance abuse, incarceration, domestic violence, and loss of a parent.[2] In a major US study of middle class adults 26% had experienced one ACE and 12.5% had experienced 4 or more.[3]

Maltreatment and other adverse childhood experiences can lead to chronic and multiple adverse mental health sequelae, including depression, anxiety, and posttraumatic stress disorder (PTSD). [3,4] Both adverse childhood experiences [3,5] and the mental health sequelae of these experiences [6] have been associated with negative physical health outcomes, including alterations in stress physiology, chronic diseases, accelerated aging, and premature death.[7-9] There has been a shift in mental health and addiction settings to providing trauma-informed care to better address these problems.[10] Trauma-informed care, which recognizes the impact of trauma and its signs and symptoms, and responds by integrating knowledge of trauma in a comprehensive way in service delivery, is spreading to primary care settings to address these individual and population-level physical health sequelae.[11]

There is mounting evidence that maltreatment/adversity and the mental health sequelae of these experiences also adversely affect perinatal health risks[12] and outcomes[13-15], maternal postpartum mental health and bonding[16], and parenting.[17] Many survivors of maltreatment/adversity in childhood are resilient or have recovered by the time they begin childbearing. But one third of those who experience maltreatment are affected with the trauma- and stressor-related condition of posttraumatic stress disorder (PTSD)[18], often in complex presentations involving co-morbidities.[19] Given the rates of maltreatment/adversity and prevalence and burden of the sequelae, it is important to consider how these experiences affect women during the childbearing year, and how midwives and other maternity care providers can better support these mothers and families.

The purpose of this article is to (1) present current perspectives on trauma-related sequelae of maltreatment/adversity, (2) briefly review their impact on childbearing outcomes, (3)

summarize technical assistance available about trauma-informed care, (4) discuss examples of conceptualizations that lend themselves to tailoring trauma-informed care for midwifery and obstetrics, and (5) consider practical aspects of implementing trauma-informed care.

CURRENT PERSPECTIVES ON TRAUMA-RELATED SEQUELAE OF MALTREATMENT AND ADVERSITY

In the 1980s and 1990s, mental health research demonstrated associations between maltreatment, family context, and psychiatric conditions. Current population studies using the questionnaire to collect trauma history data are demonstrating similar relationships between ACEs and such mental health outcomes as PTSD, depression, substance misuse, and suicide attempts. These associations are found as early as adolescence with as few as one ACE, and they occur in a dose-response relationship.[20]

In the 1990's, this work was extended to document ill effects of maltreatment and PTSD on physical health.[6] Health care disciplines have caught up with this information thanks to the ACEs study now being heavily disseminated by the Centers for Disease Control and Prevention (CDC) and the American Academy of Pediatrics.[2,3,9] The original ACEs study was funded by the CDC and Kaiser Permanente and remains one of the largest investigations into childhood maltreatment and its later effects on health and well-being. Originally conducted with over 17,000 Health Maintenance Organization members in California from 1995 to 1997, it demonstrated early morbidity occurring in a dose-response in relation to a wide variety of health and mental health outcomes, such as alcoholism, pulmonary disease, liver disease, depression, suicide attempts, and risk for sexual violence .[2] It is useful to use both the "maltreatment" and "ACEs" vocabularies to facilitate interprofessional work as the patterns of impact on subsequent health outcomes are the much same.

Effects of Childhood Maltreatment and Adversity on Women

Childhood maltreatment occurs at very high rates. The US National Survey of Children's Exposure to Violence reported the lifetime rate of childhood maltreatment trauma among girls aged 0-17 years was 26.1%, and global rates are similar.[1, 21] Thus the number of childbearing women affected by a history of childhood maltreatment is significant. In the mental health fields, maltreatment is viewed as a trauma exposure that could lead to adverse outcomes via the main sequela of PTSD; associated features such as dissociation and somatization; comorbid conditions such as depression; and risks such as substance use.[19] In health care settings, this complexity is

being simplified; ACEs cause toxic or traumatic stress.[22] ACEs are associated with early physical morbidity and early mortality—an average of 20 years sooner for people with 6 or more ACEs.[2] The concept of stress is important because stress *per se* and *posttraumatic* stress are plausible biological pathways that link an experience to subsequent disease.[22, 23] Based on research synthesized across numerous disciplines, maltreatment and the toxic stress that results from it are considered major public health challenges [9, 24]: they are strongly associated with very adverse outcomes, including early death;[3] they affect a large proportion of the population;[2] and ACEs and their sequelae contribute to health disparities seen in disadvantaged populations.[25, 26] In addition, both abuse and mental health vulnerability can be an intergenerational pattern.[16, 17]

Salience of Sexual Abuse to the Childbearing Year.

The ACE studies use a simple count of the number of types of adverse childhood experiences an individual is exposed to rather than distinguishing among them. But childhood sexual abuse in particular has captured the attention of midwives and other obstetric providers early on and for good reasons.[27] Intimate contact during well woman and perinatal care can trigger PTSD symptoms (e.g., flashbacks, hyper-arousal, avoidance). So a history of sexual trauma comes to the fore in health care encounters with sexual abuse survivors. Sexual abuse often occurs in a context of more pervasive maltreatment and adversity, so it also is associated with more pervasive sequelae that can complicate care.[28] Thus childhood sexual abuse has been and remains an important specific trauma history that midwives and other obstetric providers need to understand in order to provide care for these women.

Trauma- and Stressor-Related Mental Health Sequelae , Particularly PTSD

With the 2013 publication of the 5th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5),* six conditions have been categorized as trauma- and stressor-related. Posttraumatic Stress Disorder (PTSD)[29] is the predominant one encountered in primary care settings (Table 1). The hallmark feature of PTSD is intrusive re-experiencing of memories of the traumatic event alongside physiologic and psychologic reactions as though the trauma were happening again. For example, a woman was healthy before giving birth may have acute stress disorder when she experiences a traumatic birth. Acute stress disorder may become PTSD if it persists longer than one month. Three other trauma-related diagnoses, adjustment disorder, reactive attachment disorder, and disinhibited social engagement disorder, are less often recognized in health care settings.

Dissociative Subtype of PTSD.

Approximately 1 in 6 individuals with PTSD have a dissociative subtype.[30] Dissociation, including depersonalization (out-of-body experiences) and derealization (feeling that what is happening is unreal), occurs as a coping response to childhood maltreatment trauma.[31] Dissociation may come to the attention of a maternity care provider if a woman with this way of coping becomes overwhelmed by labor or other situations that trigger a trauma response.[32, 33]

PTSD, Depression, and Anxiety.

The *DSM-5* PTSD diagnosis now incorporates the low mood and negative cognitions of depression into PTSD when these symptoms are related to the traumatic event.[29] Women with PTSD also often meet the full diagnostic criteria for major depression,[34] and this appears to be the case in pregnancy as well.[35] Depression co-occurs in 40% of pregnant women who meet PTSD diagnostic criteria.[14] PTSD diagnosis also includes elements of anxiety such as hyper-vigilance, trouble concentrating, and sleep disorders. Current practice for perinatal mental health screening does not usually include screening for trauma history and PTSD.[35] It is still rare for assessment to distinguish whether the woman sees her depression and anxiety as related to trauma or not. Evidence-based psychological treatments for PTSD, depression, and anxiety differ but can be compatible and likely are synergistic.[36]

IMPACT OF PTSD ON CHILDBEARING OUTCOMES AND CARE

A growing body of research is showing that the effects of maltreatment/adversity and PTSD on pregnancy parallel the effects of maltreatment/adversity on health overall. The lifetime prevalence of PTSD in women is near 12%.[37] The rate of PTSD during pregnancy is high, near 8%,[38, 39] but with rates that range from near 3% in high-resource settings, to near 14% in low-resource settings.[39] Childhood maltreatment trauma is the biggest risk factor for having PTSD in pregnancy, conveying 12-fold risk.[40] Some populations, including homeless or incarcerated women, substance users, refugees and members of cultures with historical trauma, including African-Americans[27, 40] and Native Americans,[26] are more likely to have very high levels of cumulative lifetime trauma exposures and therefore higher risk for PTSD.[26, 27, 40]

Studies of pregnant women that have examined maltreatment history or PTSD find that psychosocial risk factors for adverse perinatal outcomes—intimate partner violence, smoking, and substance use—care are concentrated in this population[12,40,41] as is the case in non-pregnant populations as well; such factors are also independently associated with adversity, and add to the

complexity of the situation. Maltreatment/adversity is also a risk for adult re-victimization.[42] Substance use and smoking is broadly understood to be self-medicating behavior that is an effort to treat symptoms of noxious traumatic stress.[43] The impact of PTSD on adverse perinatal outcomes is not entirely explained by these risk exposures however.

PTSD is associated with adverse pregnancy outcomes, conveying increased odds of prematurity and low birth weight, especially when occurring in association with a history of childhood maltreatment or military sexual trauma, or when comorbid with depression.[13-15] In the two studies where both trauma exposure (child abuse, military sexual trauma) and PTSD were used as predictors, PTSD was more predictive of adverse outcomes than the trauma exposure itself.[13,15]

Having PTSD in pregnancy (i.e., pre-existing PTSD) is a risk factor for experiencing birth as traumatic and for having PTSD in the postpartum period.[15,44] Pre-existing PTSD also is strongly predictive of postpartum depression, is associated with delayed or impaired bonding with the infant and with less breastfeeding despite intention to breastfeed.[15,45]

There are intergenerational patterns of maltreatment and of mental health disorders.[46] Women with high levels of maltreatment and adversity may lack good models for maternal role development with regard to sensitive, reflective, and protective mothering. The field of infant mental health uses the terms "ghosts in the nursery"[47] and "unresolved maternal trauma" and is showing that affected women have infants who are more likely to experience dysregulation in their physiologic and behavioral stress responses and insecure or disorganized attachment.[48] Children of women who have experienced maltreatment are at higher risk for being maltreated and for other types of trauma exposures than are children of women who did not experience maltreatment,[49] and those whose mothers have PTSD and depression sequelae are more at risk for bonding impairments.[50] Children of individuals with PTSD can develop PTSD symptoms even when they have not been exposed to trauma, with both parenting behavior and epigenetic processes probably playing a role in intergenerational transmission.[51]

Effects of Traumatic Stress on the Midwifery Care Relationship

Maltreatment and ACEs have at their base harm that occurred within a care-giving relationship. This form of betrayal in childhood disrupts numerous developmental processes, including those that should lead to an individual's ability to regulate emotion, attend to bodily cues, and navigate trusting relationships.[19] Those who have a hard time navigating relationships

might present to care as "difficult" clients; seeing trauma history and sequelae as antecedents to relationship behavior might increase understanding in clinical situations.

The growing literature on birth as a traumagenic experience has strong consensus that birth-related PTSD is often related to perceived or actual interpersonal behavior of clinicians and that these interactions are 'hot spots' for later intrusive re-experiencing symptoms.[44] This suggests that the usual approach to the interpersonal therapeutics associated with midwifery practice may not always be adequate for trauma survivors, especially those with active PTSD. It may be helpful to borrow approaches from professions focused on working with individuals who have experienced trauma and tailor those approaches to midwifery and obstetric care.

A FRAMEWORK FOR TRAUMA-INFORMED CARE

Case reports and qualitative literature have laid the groundwork for providing trauma-informed care in midwifery.[27,28,32,44,52,53] Information is also available on good practices for avoiding triggering survivors in predictable situations such as during vaginal examinations.[52, 53] Midwives and other perinatal providers are becoming fluent at integrating recommended screening for intimate partner violence and depression, and developing referral resources for women so affected, So some of the basic capacities to address trauma survivors' needs are in place. The next step is to move to providing therapeutic care within the midwifery/obstetric relationship. However, the full benefit of integrating care for trauma-related needs into maternity care will not occur without systematic implementation of the trauma-informed perspective.

National Center for Trauma-Informed Care Leadership and Paradigm Change

A predominant framework to support a systematic approach to implementing trauma-informed care has emerged over the past decade via the US Substance Abuse and Mental Health Serviced Administration's funding of the National Center for Trauma-Informed Care (NCTIC).[10] NCTIC provides a mandate and technical assistance to a wide range of service delivery organizations. This mandate came from growing awareness in the mental health and addiction fields that many chronic conditions individuals seeking health services struggle with have roots in sexual abuse and other traumas.

According to NCTIC, trauma-informed care takes place when "…*services are based on an understanding of the vulnerabilities or triggers of trauma survivors so as to be more supportive and avoid re-traumatization*."[10] NCTIC seeks to change the paradigm from one that asks, "What's wrong with you?" to one that asks, "What has happened to you?"

Key Concepts of Trauma-Informed Care

The NCTIC has helped to standardize a definition of trauma-informed care. Their technical assistance has distilled a few key concepts that underpin trauma-informed care (Table 2) that include the 3 Es of conceptualizing trauma, the 4'Rs for interacting and responding, and 6 principles that underscore care. The "3 Es" conceptualization of trauma connects the event(s), the person's experience of the events, and the effects of the events. It is important to know that clinicians do not always learn about the event or experience of it via disclosure; sometimes the effects are noticed first. Table 3 provides case examples.

The "4 Rs" are the essential practices for responding that make care trauma-informed: Realizing the impact of trauma, recognizing its signs and symptoms, responding by integrating knowledge into practice (and policies and procedures), and resisting re-traumatization. In maternity care, intrusive physical contact and vulnerability and dependence on a caregiver in labor are instances where risk for re-traumatizing are high, but triggers can be very individual[28], so learning as much as one can about a client's "3 Es" matters.

The 6 principles are broad and likely underpin good care that is patient-centered or relationship-based. Their use in trauma-informed care is particularly focused on not re-enacting relationship dynamics that are triggers or re-traumatizing. The 6 principles can be applied across a variety of care settings.

A Stepped Approach

Trauma-informed care uses a stepped (or tiered) approach that encompasses universal, targeted, and specialty levels (Table 4). At the service delivery level, trauma-informed care is universal; it considers that 1 out of 5 clients has a childhood maltreatment trauma history and all staff are prepared to respond to client behaviors, interactions, and needs using a trauma-informed approach.

Trauma-specific (targeted) interventions are made available based on history (i.e., self-identifying as a survivor); these can be front-line offerings such as tailored labor planning. For some clients, targeted interventions will not meet their needs, and they should be referred to trauma-specific specialist treatment, which is mental health care provided based on diagnosis.

Organizational Change

Another feature of trauma-informed care is that it turns a trauma-informed lens on the organization itself and calls for transformation of the work culture. Assessment and potential

modification of the agency's organization, culture, and service delivery may be needed to include the basic understanding of trauma's effect on the lives of individuals seeking help. Trauma-informed care recognizes that anyone can be a trauma survivor. All staff, from the front desk to providers, are impelled to understand the 3 Es, 4 Rs, and 6 key principles. The goal is to decrease toxic and traumagenic interactions and circumstances so that both staff and clients experience the healthcare context as a safe, supportive environment.

CONCEPTUALIZING TRAUMA-INFORMED CARE FOR MIDWIFERY PRACTICE

The NCTIC framework is basic and generic. Tailoring and elaborating the model to apply to maternity services is needed. We present here two examples of tailoring trauma-informed care identified in the perinatal literature.

A Conceptual Framing that Attends to the Midwife-Client Relationship

An interdisciplinary team of US midwifery, Australian parenting, and UK abuse-prevention researchers has suggested that trauma-informed care applied to maternity care could have several *relationship-based themes*.[54] These themes are familiar to perinatal professionals because they apply to maternal and child development more broadly: *attachment*, *dyadic regulation*, and *a holding environment*.

Attachment refers to the degree to which an infant and child feels security within their relationship with their primary caregiver.[55] *Dyadic regulation* refers to the ways in which an infant or child relies on their caregiver for regulating their emotions.[56] The *holding environment* refers to the supportive space which a caregiver provides in order for a child to feel safe and secure in developing and exploring their emotions.[57] For survivors in the context of midwifery care, this holding environment can also be thought of as an environment in which a sense of psychological and physical safety can be established,[54] which has been referred to in the trauma literature as *sanctuary*.[58]

Women with childhood maltreatment trauma history (with or without posttraumatic stress) may have experienced insecure or disorganized attachment with their own primary caregiver.[59] Their caregivers may have been emotionally dysregulated (i.e., shut down, irritable, or fearful) and unable to provide the dyadic regulation needed for her to learn to modulate her own emotions. They may not have experienced relationships that serve as a *holding environment* or *sanctuary* space and provide consistent protection, encouragement, and support.

"Being with women" is an inherent component of midwifery practice. But for a client who is a survivor of traumatic stress, the midwife-client relationship and the midwife's role modeling may be providing an essential and perhaps otherwise missing template for mothering. Midwives can suggest to members of the maternity care team to name relational issues such as the *holding environment* or *sanctuary space*, focus on them, and explicitly foster these capacities in the mother-to-be.[60]

Attention to Common Concerns

Montgomery[52] conducted a meta-synthesis of qualitative studies of the labor experiences of childhood maltreatment trauma (sexual abuse) survivors and distilled themes that point to areas of special concern for these clients. The six common concerns found in this study are: need for *control*, difficulties with *disclosure*, struggling with *dissociation*, hoping for *healing*, coping if *remembering* [about abuse] happens during pregnancy, and the extreme discomfort that comes with *vulnerability*. This finite list could inform a routine set of issues to explore when working with a trauma survivor to plan her care.

Qualitative studies have consistently referred to practices to use that avoid triggering survivors. These practices address the "remembering" and "vulnerability" themes. Some best practices such as asking permission to conduct a vaginal exam in labor, or having the woman insert the speculum herself have emerged. But, as Montgomery points out,[52] internal examinations and vaginal pain in labor are not the only events that can trigger a childhood maltreatment survivor. Many triggers are idiosyncratic. Others are more subtle, often related to relationship dynamics.[28] So using a set of themes or other routine process to be systematic in assessing and planning is likely to be most useful.

Developing Trauma-Specific Perinatal Interventions

The NCTIC technical assistance in the form of the 3 Es of conceptualizing trauma, the 4 Rs for interacting/responding, and the 6 key principles are essential practices for a generic framework. But as identifying affected women becomes routine and de-stigmatized, the volume of clients wanting trauma-specific interventions may increase substantially. Approaches that leverage the whole maternity team and peer support would be ideal.

Interprofessional approaches are being advocated for perinatal settings so that trauma-informed care can span the continuum from pre-conception to antepartum, intrapartum, postpartum, and pediatric settings.[60] As of this writing, trauma-informed universal perinatal

programs (e.g., Minding the Baby,[61] Compassionate Minds[62]) and trauma-specific interventions that articulate with routine prenatal care and home visiting programs and address pregnancy and parenting issues (e.g., the Survivor Moms' Companion,[63] Seeking Safety[64]) are being developed and tested. Some treatments that are trauma-informed are also being applied with childbearing women (e.g., Eye Movement Desensitization Reprocessing, [65] Infant Psychotherapy,[66] Parents under Pressure[67]). See Table 5 for more information about these interprofessional approaches. Evidence-based treatments for PTSD exist but have not yet been tailored to take into account the triggers of pregnancy and early parenting or tested for safety and efficacy in pregnancy.[68]

Trauma-specific interventions for intrapartum settings and to address the breastfeeding needs of survivors have not yet appeared. Fathers and partners who have childhood maltreatment trauma histories may also have unaddressed needs. Pre- and post-licensure education for providers about trauma-informed care is needed as well. Intervention development, evaluation and outcomes research, and implementation studies are strongly needed.

MIDWIFERY AND TRAUMA-INFORMED CARE: PUTTING IT INTO PRACTICE

Midwifery literature has included attention to maltreatment, especially childhood sexual abuse, and posttraumatic stress since 1992,[68] so individual midwives act on this knowledge base. The time is ripe to translate trauma-informed care recommendations into midwifery practice on a larger scale and to create trauma-specific interventions for pregnant and postpartum women. Large-scale change in the standard of care takes time to accomplish. But it is not necessary to wait. In the absence of high-level evidence, clinicians can look to established routines such as the process of mutual collaboration in care planning and informed consent,[69] an approach completely consistent with the NCTIC six key principles, and seek to discover ways to take steps to move things forward. These steps will likely include clinician training, enhancement to screening and referral routines, establishing connections to trauma-specific interventions, bringing attention to trauma-related practitioner needs, and developing processes for evaluating the provision of trauma-informed care.

Training and preparation

The NCTIC technical assistance materials and trainers are available. Journal clubs, case conferences, and in-service programs are ways to introduce the concepts and lay the groundwork for changing services. The process of choosing some published interventions and gathering referral resources can help prepare the team to work together.

Screening

An early step to launching trauma-informed care, trauma-specific interventions, and trauma-specific referrals is knowing what the extent of the need is within a practice setting. Maltreatment occurs across social contexts, but disadvantaged women will have had fewer opportunities to recover and more on-going trauma exposures, so clinics in low-resource settings can expect higher rates of maltreatment/adversity and PTSD. All settings will benefit from starting out by learning the extent of survivorship within the practice setting.

Screening for adverse childhood experiences and other trauma history and PTSD will show just how big or small a proportion of trauma survivors are in the caseload, what types of trauma they have, and what their priority needs are. Disclosures are not necessary for adoption of trauma-informed principles and the general approach, but they are needed in order to offer intervention. There can be a "chicken and egg" problem at the beginning though. Providers don't want to offer intervention unless they know there's a need. But women won't disclose in clinical settings unless they know that providers are competent to hear disclosures and that some form of help is available.[40] Thus, screening and starting to offer trauma-informed care and trauma-specific interventions go hand in hand.

If the practice already screens for intimate partner violence and perinatal depression, it may be straightforward to add trauma history and PTSD screening to that routine. Several measures are available for use in screening, including the up-to-date ACE study questionnaire, which is available from the CDC in English and Spanish and used nationally for the Behavioral Risk Factor Surveillance System.[70] The 5-item Primary Care PTSD screening tool (PC-PTSD-5),[71] can be followed with the PTSD Checklist-5 for those who screen positive.[72] Both measures are available from the National Center for PTSD.

If the midwifery or obstetric practice is still in the process of training and preparing to adapt care, then a more exploratory process may be useful. A quality improvement project to try out history and screening questions and ask respondents about trauma-related needs could be a place to start. For example, an anonymous survey process could be used (i.e., a pile of screening forms and a locked box to deposit forms in the waiting room). Once the practice group or clinic staff know the types of trauma (or ACE scores) and rates of screening positive for PTSD, they can begin developing the trauma-specific intervention offerings and cultivating the referral relationships they need in order to provide the universal, targeted, and treatment responses

appropriate to their setting. Making these offerings plain in practice welcome documents, posters, brochures, and in clinical conversations will then become the signs of competence and help that women need to disclose "on record" rather than only anonymously.

Offering Interventions and Referrals

The stepped approach to trauma-informed care has the important implication that several strategies may need to be developed simultaneously or in rapid succession. The biggest focus when implementing trauma-informed care is on addressing front-line trauma-related maternity needs that arise in the context of usual clinic and home visiting care. Women who screen positive for intimate partner violence (IPV) may need safety planning as a first priority, but they also will benefit from care within a trauma-informed care context. Women who have PTSD from a previous traumatic birth or other types of trauma exposures also will appreciate trauma-informed care, even though their background may not include childhood maltreatment trauma.[44]

Looking for trauma-specific interventions that have been developed or adapted for perinatal populations and that have a beginning or solid evidence base is the next step. As reviewed above, these are emerging (see Table 5). Some are available now, and others are likely to become easily accessed in the near future.

Being able to refer women to specialty services is also a near-term need. In many settings perinatal mental health services are available, but these colleagues may not be experienced with treating PTSD. Trauma-focused psychotherapy practices may be available, but they may not be expert on tailoring to the needs of pregnant women. So some professional networking may be necessary to put excellent referrals into place.

Referral alone is not adequate for a woman with active PTSD. First, routine aspects of prenatal or gynecologic care can be intrusive, painful, and triggering, so care providers need to be ready to alter routines and be competent to respond therapeutically to PTSD and dissociative reactions in the moment, at the bedside. Second, the hallmark PTSD symptom of avoidance of reminders of the trauma leads women to avoid mental health treatments, many of which require focusing on the trauma or using medication such as selective serotonin reuptake inhibitors (SSRIs).[36] Many women may prefer to focus on avoiding triggers during pregnancy and birth, deferring trauma-focused treatment to the postpartum period. Third, although many survivors do well during their pregnancies and early postpartum period, others are very adversely affected and are at high risk for harming themselves or their infant. It may take a team to meet the needs of

acutely affected women. The best referrals midwives can facilitate may be to infant mental health services that are dyadic and attachment-focused, to parenting education and support, or to child protection services when the midwife has reason for concern for the child's welfare.

Attending to Trauma-Related Practitioner Needs

Deepening knowledge of trauma-related sequelae and working openly to support clients can lead to both professional growth and compassion fatigue. Midwives themselves may have sequelae from childhood maltreatment or from work-related trauma exposures. [73] Applying a trauma-informed approach requires staff to support each other when there are challenging clients or adverse outcomes. Midwives may want to borrow some norms from the psychotherapy professions where it is usual for providers to use case conferences or consult regularly with a senior colleague for "supervision." Self-care is also given high importance to prevent vicarious trauma.[73] Clinicians who have a trauma history or PTSD themselves consider it valuable to do psychotherapy to improve their capacity to work with traumatized clients without being triggered or reactive.

Trauma-informed care requires that all staff use the 4 Rs and 6 principles. However, it is probably not necessary that all providers become expert at clinical care of trauma survivors. There are models of organizations where one clinician in the group chooses to lead care of trauma survivors.[74] Secondary practices, where a midwife or doula specializes in trauma informed care, is a model that has been presented in the midwifery literature.[75] These models may be a feasible starting point or even a long-term structure.

Evaluating Care and Building the Evidence Base

Finally, practices need to consider how to evaluate trauma-informed care, trauma-specific interventions, and the results of referrals. Evaluation results will help refine the services offered so they best fit the needs of the women receiving care. Evaluations of specific interventions can also help make the case that these interventions are of value and warrant resources such as reimbursement. The simplest measure could be repeated use of a standardized PTSD symptom checklist that was used for initial assessment.[72] Midwives can ask those who used trauma-specific interventions and referrals a few standard evaluation questions such as, "If you had it to do over again (i.e., use this program, see that therapist), would you?" Or, "If you had a friend who needed it, would you recommend it to her? Why or why not?" Or simply, "How useful was it to you?" or "How satisfied were you with your experience?" As trauma-specific interventions

are developed for perinatal populations, participating in quality improvement, evidence-based practice implementation projects, and outcomes research will be another way to move the field forward by helping to create the evidence base.

Midwives should also notice and measure positive outcomes such as posttraumatic growth or the mother's self-efficacy to keep her child safe from abuse. Such outcomes seem feasible if giving birth and becoming a mother takes place in a context that recognizes that the midwifery-client relationship can provide the therapeutic holding environment that childhood maltreatment trauma survivors need.

CONCLUSION

Providing trauma-informed care as part of midwifery practice has the potential to prevent adverse outcomes, help break intergenerational cycles of maltreatment and mental health disorders, and change the mother's and child's lifespan trajectories into a positive direction.[46,60] The problems stemming from childhood maltreatment and adversity are universal. The global community of midwives are ideally positioned to support each other in creating ways to mitigate them with the women in our care.

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Table 1: Overview of Trauma- and Stressor-related Disorders per *DSM-5*,[30] Focusing on PTSD

DSM-5 wording explaining this category of diagnoses:

"Trauma- and stressor-related disorders include disorders in which exposure to a traumatic or stressful event is listed explicitly as a diagnostic criterion. These include

- Reactive attachment disorder,
- Disinhibited social engagement disorder,
- Posttraumatic stress disorder
- Acute stress disorder, and
- Adjustment disorders.

Placement of this chapter reflects the close relationship between these diagnoses and disorders in the surrounding chapters on anxiety disorders, obsessive-compulsive and related disorders, and dissociative disorders."

Posttraumatic Stress Disorder (PTSD): Symptoms are a consequence of exposure to a traumatic event. The syndrome involve symptoms across 4 clusters:

Intrusive Re-experiencing: feeling psychologically or physically as thought the trauma is happening again, in response to triggered memories, nightmares, or flashbacks.

Avoidance: avoiding people, places, thoughts, or feelings that trigger re-experiencing. This can lead to feelings of alienation from others.

Negative mood and cognitions: feeling self-blame, shame, and helplessness or hopelessness and well as low mood and living with a pervasive sense that the world is a dangerous place.

Hyperarousal: readiness for fight or flight including exaggerated startle reflex, hyper-vigilance, inability to stay or fall asleep, irritability and anger, impulsive and self-harming behaviors.

Dissociative subtype: Under stress approximately15% of individuals with PTSD also experience depersonalization (i.e., out of body sensation) or derealization (i.e., sense that what

is happening is like a movie or play and not real).

Table 2. Main Elements of National Center for Trauma-Informed Care Technical Assistance

<table>
<tr><td colspan="3">Overarching mandate for a trauma-informed approach:

It is critical to promote the linkage to recovery and resilience for those individuals and families impacted by trauma. Services and supports that are trauma-informed build on the best evidence available and foster engagement, empowerment, and collaboration.</td></tr>
<tr><td>Conceptualization of trauma: 3 Es:

“Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being.”</td><td>Essential practices: 4 Rs

A program, organization, or system that is trauma-informed:
1. Realizes the widespread impact of trauma and understands potential paths for recovery;
2. Recognizes the signs and symptoms of trauma in clients, families, staff, and others;
3. Responds by fully integrating knowledge about trauma into policies, procedures, and practices;
4. Seeks to actively resist re-traumatization.
A trauma-informed approach can be</td><td>6 key principles:

A trauma-informed approach reflects adherence to six key principles rather than a prescribed set of practices or procedures. These principles may be generalizable across multiple types of settings, although terminology and application may be setting- or sector-specific:
1. Safety
2. Trustworthiness and Transparency
3. Peer support
4. Collaboration and mutuality
5. Empowerment, voice and choice
6. Cultural, historical, and gender issues</td></tr>
</table>

	implemented in any type of service setting or organization and is distinct from trauma-specific interventions or treatments that are designed specifically to address the consequences of trauma and to facilitate healing.	

Table 3. Case Illustrations of the 3 Es Conceptualization of Trauma and How It Can Affect Maternity Care

Event(s)	**Experience of the events**	**Effects**	**Effects specific to childbearing**	**Realizing** the impact of trauma and potential for recovery, and **recognizing** the signs, symptoms …
Lily is a refugee from the Congo who was physically and sexually assaulted while her husband was away in combat.	She told no one, not even her husband, even though she had severe nightmares and tried never to be alone.	Lily experiences the nightmares, hyper-vigilance, self-blame, and avoidance of PTSD, but usually only near the anniversary.	Lily does not have PTSD anymore, but she dreads being separated from her husband in the maternity setting.	The midwife **responds** by normalizing this need to have her husband with her, reassuring that he can attend all visits, planning with couple for him to be present in labor, and enrolling them in childbirth education. She **resists re-traumatizing** by honoring the commitment to keep the couple together at all times.
Marianne was sexually abused by her uncle as a young girl and as a teenager she experienced date rape.	She told herself that she would remain single and avoid sexual activity so she would not have to remember.	In a loving relationship now, Marianne still finds intimate contact hard and dissociates during intercourse.	Marianne is terrified of being examined vaginally during pregnancy or when she is in labor.	The midwife **responds** by assessing if the fear is of vaginal examination, of having flashbacks, or both. She collaborates to plan accordingly. She also offers referral for trauma-specific therapy so Marianne can address remaining effects. She **resists re-traumatizing** using strategies to minimize vaginal examinations to help Marianne

				feel safe and connected.
Josie's mother had a string of violent relationships, drank heavily, and failed to protect her daughter from beatings.	Josie felt abandoned, and believed she was alone in the world, unworthy of love, and she was often depressed.	She has spent the last three years in a violent partner relationship.	Josie is worried that she will not feel love for her baby and has a feeling of panic that she will not be able to keep the baby safe.	The midwife **responds** by acknowledging cycles of abuse, holding out hope Josie will bond well and chose safety. She connects Josie to IPV services with parenting support. She **resists re-traumatizing** by anticipating Josie's need not to feel abandoned. She arranges a doula so Josie will have continuous support in labor and the subsequent days.

Abbreviations: IPV, intimate partner violence

Table 4. A Trauma-informed System of Maternity Care Parallels the Familiar Stepped (or Tiered) Model of Care

	Usual Care	**Trauma-Informed Care**	**Examples**
Universal—based on awareness of a problem in the population	Medical, surgical, obstetric and social history, which now likely includes depression screening	Adds Trauma history and screening for trauma-related disorders (at least PTSD), plus assessment of social support that does not assume partner/family are safe and helpful	Uses Adverse childhood Experiences or other trauma history questionnaire and a PTSD screening tool for primary care (e.g., PC-PTSD)
Targeted intervention—based on history or contextual factors	Enrollment in social work or home visiting if "vulnerable" due to poverty or young age	Adds Trauma-Specific Interventions for survivors (i.e., based on history)	Offers psychoeducation, group prenatal care for survivors, trauma-trained doula for labor, later parenting support group for survivor moms and dads.
Specialist treatment—based on diagnosis	Referral to Interpersonal Therapy +SSRIs or other evidence-based depression treatment indicated	Adds ability to refer to therapists who use evidence-based PTSD treatments (e.g., EMDR) and can tailor to address perinatal triggers	Provides treatment engagement support so the woman can choose among PTSD-specific treatment options, including medications

Abbreviations: PTSD, posttraumatic stress disorder; PC-PTSD, primary care posttraumatic stress disorder screen; SSRIs, Selective serotonin reuptake inhibitors; EMDR, Eye Movement Desensitization and Reprocessing.

Table 5. Brief Descriptions of Examples of Trauma-Informed Universal Perinatal, Trauma-Specific Interventions, And Trauma-Informed Treatments

Interventions in the perinatal period	**Description**
Minding the Baby (Sadler, Slade, Close, et al., 2013).	Combines nurse home visiting with components of parent-infant psychotherapy for vulnerable mothers and their infants from pregnancy until the baby reaches 2 year. Aimed mother-infant relationship disruptions stemming from mothers' difficult attachment histories and early trauma.
Compassionate Minds (Renshaw & Wrigley, 2015).	Augmentation module suited for nurse home visiting programs. Intended to inform parents about compassion, the importance of self-compassion, and teach them skills for emotional dysregulation and distress.
Survivor Moms' Companion (Seng, Sperlich, Rowe, Cameron, Harris, & Bell, 2011).	Self-study psychoeducation program intended to address specific needs of pregnant abuse survivors impacted by traumatic stress. Aimed at decreasing interpersonal reactivity, improving affect regulation, and supporting PTSD symptom management despite presence of triggers.
Seeking Safety (Upshur, Wenz-Gross, Weinreb, & Moffitt, 2016).	Present-focused, manualized psychoeducation intervention intended to improve coping skills for those with comorbid substance use and PTSD .
Eye Movement Desensitization and Reprocessing (Baas, Stramrood, Dijksman, de Jongh, & van Pampus, 2017).	Trauma-specific therapy modality that facilitates the processing of traumatic memories and negative self-directed beliefs through bilateral eye movements or other bilateral stimulation.
Infant Psychotherapy (Barlow, Bennett, Midgley, Larkin, & Wei, 2015).	Dyadic intervention involving parent and infant working together to improve parent-infant attachment and promote optimal infant development by targeting mother's view of her infant.
Parents under Pressure (Barlow, Sembi, Gardner, et al., 2013).	Intensive home visiting program that combines mindfulness, attachment theory, and attention to self-regulation. Often geared towards mothers with current or historical substance abuse issues with attention to histories of abuse and trauma.